

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.*

C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

4.56.n SEB “B” Target Primary Cave Sweep Checklist

C-A-OPM Procedures in which this Attachment is used.		
4.56		

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
_____	_____	_____	_____
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Approved: _____
Signature on File
 Collider-Accelerator Department Chairman _____
 Date _____

P. Ingrassia

SEB "B" TARGET PRIMARY CAVE SWEEP CHECKLIST

(Team Leader)_____ (Operator 2)_____

Time:_____ Date:_____

Warning:

If any personnel are encountered during the sweep, **then** they will remain with the sweeper or the sweep shall be aborted. **If** the sweep is aborted **then** the person(s) must be escorted out of the cave by unlocking and opening the "B" Target Cave Gate.

Prerequisites

- B Target Cave Toggle switch is set to CA (Terminal Room 215 Bldg. 911B)
- Two Operators to perform the sweep
- BNL keys, Nos. 11,15, AA256A, AA225
- C-A-OPM-ATT 4.56.n-- SEB "B" TARGET PRIMARY CAVE SWEEP CHECKLIST (3 pages)
- Controlled Access enabled by simultaneous operation of BNL6 key switch & MCR_2-1Q2 pushbutton
- TLD, Alarming (chirping) Self Reading Dosimeter (SRD)

Warning:

"B" Target radiation levels can exceed 20-50 Rem/hr. at contact

Note 1:

Operate the target shutter (curtain) drive at slow speed only.

Note 2:

If the movable shutter (curtain) fails to move, do not abort the sweep. Spend less time in the vicinity of the target during the sweep.

Note 3:

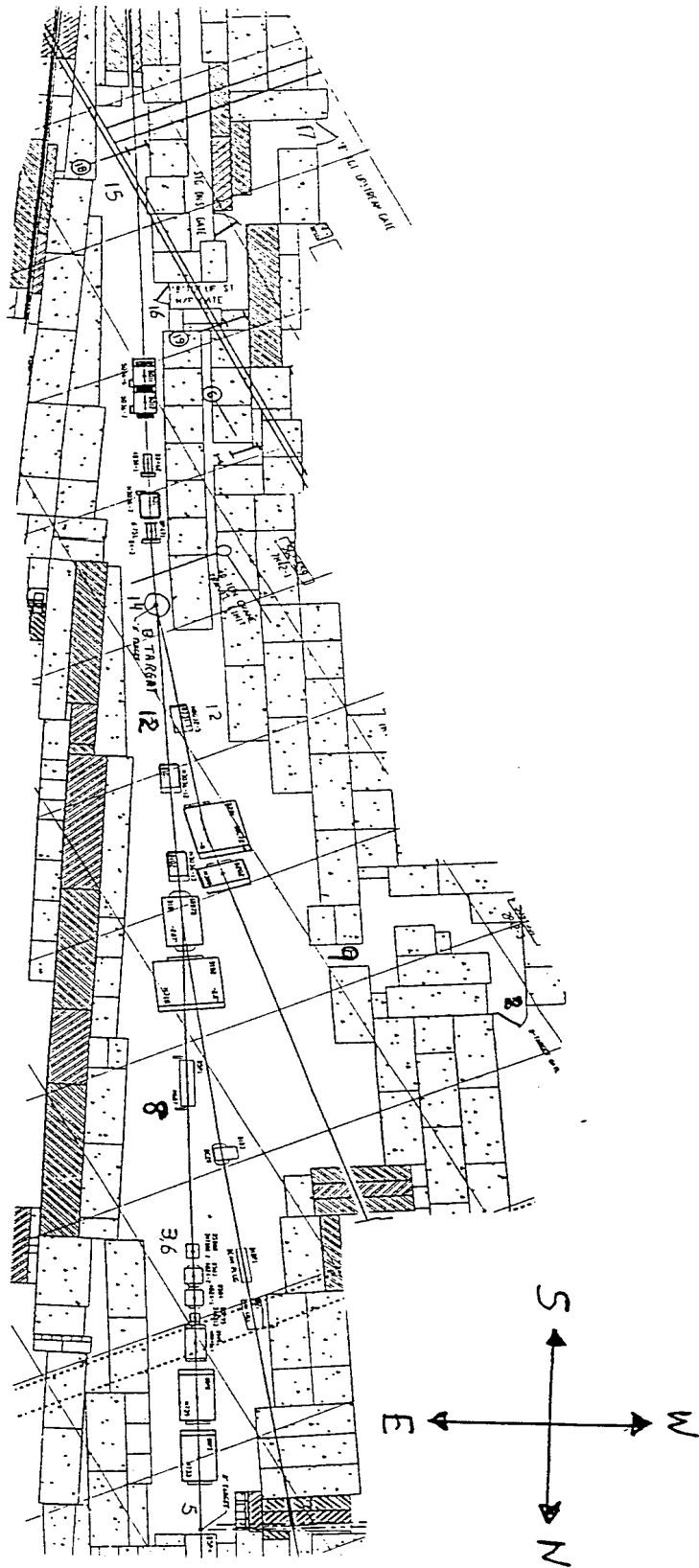
The Operator may chose not to close the Target Shutter if they think that less dose will be incurred by not doing so.

Check

- _____ 1. IF the Energy Disconnect Switch is not in the ON position for B5 shutter drive (around the corner and to the right of the "B" Target Downstream Gate #9) THEN the Team Leader shall turn it on.
- _____ 2. Team Leader and Operator 2 enter (BNL 15 key, and AA225 key) "B" Target Downstream Gate (#9) close gate behind.
- _____ 3. Team Leader and Operator 2 proceed downstream to B5D88. Operator 2 crosses under B5 line and stands at upstream end of B5D88.
- _____ 4. Team Leader closes the Movable Target shutter by using controls on the wall or floor opposite B5P2:
 - Set Forward/Reverse selector to Forward to close the shutter
 - Turn drive speed control Counter Clockwise for SLOW
 - Push Green START button to start the motion.
 - When the clunk is heard or the curtain motion stops press the Red STOP button.

CONTINUED ON REVERSE SIDE

- _____ 5. Team Leader proceeds to the B5 target along the west (beam left) side of B5 while Operator 2 proceeds to B5 target along east (beam right) side of B5.
- _____ 6. Team Leader contacts Operator 2 and both persons sweep the target area and then sweep back to B5D88.
- _____ 7. The Team Leader opens the B5 Target Shutter.
- _____ 8. Operator 2 sweeps the east side of B5 line and stands static watch at downstream end of B5P1 where they can easily view the entrance to the B Target Downstream Gate labyrinth.
- _____ 9. Team Leader sweeps under B1 line and then under B2 line and enters the B Target Downstream gate labyrinth and proceeds to the gate.
- _____ 10. Team Leader locks and resets the "B" Target Downstream Gate by simultaneously pushing the reset button while turning the BNL 15 key. Team Leader observes that the "Bolt Switch" light (clear) and "Reset" light (amber) are lit.
- _____ 11. Team Leader sweeps down the labyrinth and contacts Operator 2.
- _____ 12. Team Leader (beam left of B2 line) and Operator 2 (beam right of B5 line) sweep upstream to B2Q1.
- _____ 13. Team Leader crosses under B line, upstream of B2Q1 to be on same (east) side of target cave.
- _____ 14. Team Leader and Operator 2 quickly sweep upstream past the "B" target and stop at the "B" Target Upstream HP Gate.
- _____ 15. Operator 2 Sweeps the target storage (pig) area at the upstream end of the cave then rejoins Team Leader.
- _____ 16. Team Leader and Operator 2 sweep through the "B" Target Upstream HP gate, close the gate and verify that the Gate Secured light (red) is lit on the HP Box.
- _____ 17. Team Leader and Operator 2 sweep through the "B" Target Upstream Gate and close the gate.
- _____ 18. Team Leader locks and resets (BNL 11 key) the "B" Target Upstream Gate, making certain that the "Bolt Switch" light (clear) and the "Reset" light (amber) are lit.
- _____ 19. Team Leader shall verify with MCR personnel that "B" Target Upstream and Downstream gates are reset for beam by viewing the indicators at MCR_2-1Q6 and MCR_2-1Q7
- _____ 20. File the checklists in the Completed Sweep Checklist Binder.



Plan View of B Primary Cave
Numbers Correspond to Steps in Sweep Procedure